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EXAMINER

BOATENG, ALEXIS ASIEDUA

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GROUP 2800
DEC 21 2006
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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Application Number: 10/733,221
Filing Date: December 11, 2003
Appellant(s): HAMILTON ET AL.

MAILED
DEC 21 2006
GROUP 2800

Alistair Hamilton
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 8/03/06 appealing from the Office action
mailed 2/08/06

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

2003/0210106

Cheng et al.

Nov. 13, 2003

6,016,046

Kaite et al.

Jan. 18, 2000

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5,070,293	Ishii	Dec. 3, 1991
6,917,182	Burton	July 12, 2005
5,805,998	Kodama	Sep. 9, 1998
5,600,225	Goto	Feb. 4, 1997
6,608,464	Lew	Aug. 19, 2003
6,184,651	Fernandez	Feb. 6, 2001
6,114,832	Lappi	Sep. 5, 2000
6,327,127	Utsunomiya	Dec. 4, 2001

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 1, 9, 11 – 14, 17 – 19, 27 and 29 are rejected under 35 U.S.C. 102(e) as being anticipated by Cheng (U.S. 2003/0210106).

Regarding claim 1, Cheng discloses a portable computing device (paragraph [0124]), comprising: a component that receives an electro-magnetic flux (figure 5 item 800) generated from an external source (figure 5 item 700); and a charging component that generates a charging current from the flux (figure 5 item 700), and charges a rechargeable power supply (paragraph [0029] and [0030]; paragraph [0124] – [0125]). Cheng discloses in paragraph [0081] and [0163] wherein a control unit is used to control the charging times for devices. Cheng further discloses in paragraph [0163] wherein multiple devices may be charged at different times because "alternate charging" means different times.

Regarding claim 9, Cheng discloses in paragraphs [0081] and [0163] wherein each device will be charged with their own respective times. Cheng providing at least one primary induction assembly (figure 3 item 600) with a primary winding (figure 6f item 710, 740) configured to create a magnetic flux; providing a second pick up induction assembly (paragraph [0046]) coupled to a rechargeable power supply (paragraph [0087]) of a portable unit (paragraph [0126] – [0136]); the magnetic flux extendable in to the second pick up induction assembly (paragraph [0086]); and opportunistically recharging the power supply via a current created in the second induction assembly from the magnetic flux (paragraph [0205]).

Regarding claim 11, Cheng discloses the method of immediately recharging the power supply, when the magnetic flux extends in to the second pick up assembly (paragraph [0205]).

Regarding claim 12, Cheng discloses providing a controlling at least one of the primary induction and the secondary induction assembly (figure 5 item 770).

Regarding claim 13, Cheng discloses triggering an event to energize the primary winding (paragraph [0086]).

Regarding claim 14, Cheng discloses the trigger further comprising varying a light feature (paragraph [0107]).

Regarding claim 17, Cheng discloses aligning the second induction assembly in close spatial proximity to the first induction assembly (abstract and paragraph [0071]).

Regarding claim 18, Cheng discloses carrying the first induction assembly by a member of a group; and approaching the member when an opportunistic recharge is required for portable units of other members (paragraphs [0090] – [0102] and [0073]).

Regarding claim 19, Cheng discloses a charging system for a portable unit comprising: a controller that determines a charging time for a rechargeable power source of the portable unit and allocates a partial charge time to the rechargeable power source (paragraph [0081]); a primary induction assembly (paragraph [0046]) with a primary coil (figure 6f item 710, 740) coupled to a primary power source (figure 5 item 760); and a secondary induction assembly

with a secondary coil coupled to a rechargeable power source (paragraph [0087]) of the portable unit; the magnetic flux of the first primary induction assembly extendable to the secondary induction assembly (paragraph [0086]) so as to provide the rechargeable power source a charging current that is inductively created via the magnetic flux during an opportunistic charging of the portable unit. (paragraph [0205]).

Regarding claim 27, Cheng discloses wherein the primary induction assembly is part of a flat pad (paragraph [0091]).

Regarding claim 29, Cheng disclose a means for allocating disparate charge times (paragraph [0081]) to at least two portable units (paragraph [0073]); means for creating a magnetic flux (figure 4c: paragraph [0182]); and means for receiving a magnetic flux, the receiving means operatively connected to a rechargeable power source of each of the at least two portable units so as to create an electric current during an opportunistic charge of the at least to portable units (paragraph [0087]).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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4. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cheng (U.S. 2003/0210106) in view of Kaite (U.S. 6,016,046).

Regarding claim 6, Cheng does not disclose the invention as claimed. Kaite discloses in column 4 lines 55 thru 56 the rechargeable power source being at least one of a fuel cell, a capacitor, a super capacitor, and a rechargeable battery cell. At the time of invention, it would have been obvious to a person of ordinary skill in the art to modify the Cheng system with the Kaite system so that power source can be effectively recharged.

5. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cheng (U.S. 2003/0210106) in view of Kaite (U.S. 6,016,046) as applied to claim 1 above and in further view of Ishii (U.S. 5,070,293).

Regarding claim 2, neither Kaite nor Cheng discloses wherein the portable computing device of claim 1 further comprises a bar code scanner. Ishii discloses in the abstract wherein the portable device is a bar code scanner. At the time of invention, it would have been obvious to a person of ordinary skill in the art to make the portable device comprise a bar code scanner so that it the scanner is mobile which makes it easier to scan a wide range of materials.

6. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cheng (U.S. 2003/0210106) in view of Kaite (U.S. 6,016,046) as applied to claim 1 above and in further view of Burton (U.S. 6,917,182).

Regarding claim 3, neither Kaite nor Cheng discloses wherein the portable computing device comprises an artificial intelligence (AI) component that infers

and/or determines when the power supply should be recharged. Burton discloses in column 5 lines 65 thru column 6 line 11 wherein microprocessor 262 is used to control when the device should be charged. At the time of invention, it would have been obvious to a person of ordinary skill to implement an artificial intelligence component to determine when charging is necessary so that the device is prevented from completely being harmfully discharged.

7. Claims 4, 8 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cheng (U.S. 2003/0210106) in view of Kaite (U.S. 6,016,046) as applied to claim 1 in view of Kodama (U.S. 5,805,998).

Regarding claims 4, 8 and 26, Neither Cheng nor Kaite disclose wherein the portable computing device comprises a notification component that notifies the user that the device should be exposed to the external flux source. Kodama discloses in figure 5 and in column 9 line 66 thru column 10 line 16 where when the voltage drops below a predetermined level, an LED in the portable device turns on to notify the user of a low battery voltage. At the time of invention, it would have been obvious to a person of ordinary skill in the art to implement a notification device of when the battery needs to be charged so that it the user can recharge the battery when it is at a low voltage.

8. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cheng (U.S. 2003/0210106) in view of Goto (U.S. 5,600,225).

Regarding claim 10, Cheng does not disclose the invention as claimed. Goto discloses a method of opportunistically recharging the power supply without

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deactivating the portable unit (column 4 lines 49 through 67). At the time of invention, it would have been obvious to a person of ordinary skill in the art to modify the Cheng system with the Goto system so that the devices are usable continuously while being charged.

9. Claims 15, 16, and 22 rejected under 35 U.S.C. 103(a) as being unpatentable over Cheng (U.S. 2003/0210106) in view of Lew (U.S. 6,608,464).

Regarding claims 15, 16 and 22, Cheng does not disclose wherein the sensor is at least one of a motion and a light sensor. Lew discloses in column 7 lines 20 thru 50 wherein solar cells are used to sense light and a motion trigger is used to generate a magnetic field thru the coils. At the time of invention, it would have been obvious to a person of ordinary skill in the art to implement the sensor as a motion and/or a light sensor that the charging can be manifested in different manners when a standard power source is unavailable.

10. Claim 20 rejected under 35 U.S.C. 103(a) as being unpatentable over Cheng (U.S. 2003/0210106) in view of Fernandez (U.S. 6,184,651).

Regarding claim 20, Cheng does not disclose wherein the charging system comprises a controller in wireless communication with the portable unit for monitoring a state of charge of the rechargeable power source. Fernandez discloses in figure 2 item 11 wherein the primary controller uses wireless feedback of control signaling. At the time of invention, it would have been obvious to a person of ordinary skill in the art to use wireless communication

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because the user does not have to worry about wires becoming worn out or damaged.

11. Claims 21 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cheng (U.S. 2003/0210106) in view of Kaite (U.S. 6,016,046).

Regarding claim 21, Cheng does not disclose wherein the controller comprises a sensor. Kaite discloses in figure 2 item 125 wherein a current sensing section is comprised within the controlling circuit. At the time of invention, it would have been obvious to a person of ordinary skill in the art, to implement a sensor in the controlling circuit of the system so that the circuit can sense different changes in the system and effectively regulate the process of charging and discharging within the system to prevent damages.

Regarding claim 23, Cheng does not disclose wherein the rechargeable power source is at least one of a fuel cell, a capacitor, and a rechargeable battery cell. Kaite discloses in column 4 lines 55 thru 56 wherein a rechargeable battery cell is used. At the time of invention, it would have obvious to a person of ordinary skill in the art to use a fuel cell, a capacitor or a rechargeable battery cell for the system because they provide a more efficient manner in saving and supplying power to devices.

12. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cheng (U.S. 2003/0210106) in view of Lappi (U.S. 6,114,832).

Regarding claim 25, Cheng does not disclose wherein at least one of the portable unit and the charger system is wearable around a user's body. Lappi

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discloses in figure 1 item 100 where the charger system is wearable around a user's body. At the time of invention, it would have been obvious to a person of ordinary skill in the art to make the portable unit or the charger wearable to the user so that it is easier and more convenient to charge the portable unit.

13. Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cheng (U.S. 2003/0210106) in view of Lappi (U.S. 6,114,832) as applied to claim 25 above and in further view of Utsunomiya (U.S. 6,327,127)

Regarding claim 28, Neither Cheng nor Lappi disclose where a thermo-coupler is connected to a user's body for additionally recharging at least one of the primary power source and the rechargeable power source. Utsunomiya discloses in column 6 lines 5 through 14, wherein the body temperature from the user is used to generate an electric current to recharge the battery in the device. At the time of invention, it would have been obvious to a person of ordinary skill in the art to implement a thermocouple device to recharge the battery so that when a standard power source, such as an AC current, is unavailable, the user's body temperature can be used continuously.

(10) Response to Argument

A. Rejection of 1 – 4, 6, and 8 Under 35 U.S.C. §112, second paragraph

The appellant argues submits that the claim has been amended to overcome the rejection. The rejection has been withdrawn.

B. Rejection of Claims 1, 9, 11 – 14, 17 – 19, 27 and 29 under U.S.C. § 102 (e)

i. Claims 1 and 19 (and corresponding dependent claims)

The appellant argues wherein the Cheng reference fails to teach or suggest a controller that determines a first charging time for a portable computing device and allocates a second charging time to the portable computing device. However, Cheng discloses in paragraph [0209] wherein a control unit is controls the driving unit, which drives the magnetic unit. The magnetic consists of two coils, that are independently driven to provide power to the device unit. As disclosed in paragraph [0163] and [0209], the coils are independently driven which shows the charging is done is allocated at different times. The appellant argues that the examiner is mistaken in contending that Cheng's control unit controls the charging time of the secondary devices within the system and that the controller simply determines whether additional components need to be added to the circuitry to maintain a level of resonance. The controller not only determines which additional components need to be added, but also controls the charging of the coils to charge the devices as shown in paragraph [0209]. The appellant continues to argue wherein activating the coils at different times does not determine or allocate charging times, but rather enables the charger device to be more flexible with respect to the orientation of the secondary devices. Since the coils are independently activated to charge the devices separately, wherein the each device has its own charging time, therefore different times are allocated to the devices while they are charged.

ii. Claims 9 and 29 (and corresponding dependent claims)

The appellant argues wherein Cheng does not disclose a system that allocates charge times to individual devices that require charging. However, Cheng discloses in

[0209] wherein a control unit is controls the driving unit, which drives the magnetic unit. The magnetic consists of two coils, that are independently driven to provide power to the device unit. As disclosed in paragraph [0163] and [0209], the coils are independently driven which shows the charging is done is allocated at different times. Please see arguments above.

C. Rejection of Claim 6 Under 35 U.S.C. §103(a)

The appellant argues wherein claim 6 depends from independent claim 1 and as argued *supra*, Cheng does not teach or suggest all limitation of claim 1. In regards to this, please see arguments above. The appellant continues to argue wherein Kaite relates to a battery pack containing rechargeable batteries and a charger device associated therewith and does not make up for the aforementioned deficiencies of Cheng et al. The Kaite reference is relevant art because both charging for a device is conducted in the same manner, with electromagnetic induction, as is done with the appellant's application. Please see arguments above.

D. Rejection of Claim 2 Under 35 U.S.C. §103(a)

The appellant argues wherein claim 2 depends from independent claim 1, and as argued *supra*, Cheng does not teach or suggest each and every aspect of independent claim 1. In regards to this, please see arguments above. The appellant continues to argues wherein Kaite fails to make up the deficiencies of Cheng. Please see arguments above. The appellant further argues wherein Ishii relates to a device that transmits electrical energy from one coil to another coil using an inductive coupling and does not make up the deficiencies of Cheng et al. and Kaite et al. Please see arguments above.

E. Rejection of Claim 3 Under 35 U.S.C. §103(a)

The appellant argues wherein claim 3 depends from independent claim 1, and as argued *supra*, Cheng does not teach or suggest each and every aspect of independent claim 1. In respect to this, please see arguments above. The appellant continues to argues wherein Kaite fails to make up the deficiencies of Cheng. In respect to this, please see arguments above. The appellant further argues wherein Burton relates to a charging system that controls the charging of a device by varying the current supplied to the inductive coils of the charging system and does not make up the deficiencies of Cheng et al. and Kaite et al. Please see arguments above.

F. Rejection of Claims 4, 8, and 26 Under 35 U.S.C. §103(a)

The appellant argues wherein claims 4, 8, and 26 depend from independent claims 1 and 19, and as argued *supra*, Cheng does not teach or suggest each and every aspect of independent claims 1 and 19. In respect to this, please see arguments above. The appellant continues to argues wherein Kaite fails to make up the deficiencies of Cheng. In respect to this, please see arguments above. The appellant further argues wherein Kodama relates to a cordless telephone line and radio transceiver and does not make up the deficiencies of Cheng et al. and Kaite et al. In respect to this, please see arguments above.

G. Rejection of Claim 10 Under 35 U.S.C. §103(a)

The appellant argues wherein claim 10 depends from independent claims 1 as argued *supra*, Cheng does not teach or suggest each and every aspect of independent claim 1. In respect to this, please see arguments above. The appellant further argues

wherein Goto relates to recharging a battery without directly contacting the battery and generating a halting signal to halt the supply of AC power to a primary coil of the system and does not make up the deficiencies of Cheng et al. In respect to this, please see arguments above.

H. Rejection of Claims 15, 16, and 22 Under 35 U.S.C. §103(a)

The appellant argues wherein claims 15, 16, and 22 depend from independent claims 1 and 19 as argued *supra*, Cheng does not teach or suggest each and every aspect of independent claims 1 and 19. In respect to this, please see arguments above. The appellant further argues wherein Lew relates to solar cells laminated onto a substrate that functions as a power source and does not make up the deficiencies of Cheng et al. In respect to this, please see arguments above.

I. Rejection of Claim 20 Under 35 U.S.C. §103(a)

The appellant argues wherein claim 20 depend from independent claim 19 as argued *supra*, Cheng does not teach or suggest each and every aspect of independent claim 19. In respect to this, please see arguments above. The appellant further argues wherein Fernandez relates to contactless charging system with a controller having a wireless link and does not make up the deficiencies of Cheng et al. In respect to this, please see arguments above.

J. Rejection of Claim 21 and 23 Under 35 U.S.C. §103(a)

The appellant argues wherein claims 21 and 23 depend from independent claim 19 as argued *supra*, Cheng does not teach or suggest each and every aspect of independent claim 19. In respect to this, please see arguments above. The appellant

further argues wherein Kaite relates to a charger device that charges a battery pack of rechargeable batteries without physically contacting the battery pack and does not make up the deficiencies of Cheng et al. In respect to this, please see arguments above.

K. Rejection of Claim 25 Under 35 U.S.C. §103(a)

The appellant argues wherein claim 25 depends from independent claim 19 as argued *supra*, Cheng does not teach or suggest each and every aspect of independent claim 19. In respect to this, please see arguments above. The appellant further argues wherein Lappi relates to a charging system for a heart rate measurement system and does not make up the deficiencies of Cheng et al. In respect to this, please see arguments above.

L. Rejection of Claim 28 Under 35 U.S.C. §103(a)

The appellant argues wherein claim 28 depends from independent claim 19 as argued *supra*, Cheng does not teach or suggest each and every aspect of independent claim 19. In respect to this, please see arguments above. The appellant further argues wherein Utsunomiya relates to a maintaining a specified voltage level, does not compensate for the aforementioned deficiencies and does not make up the deficiencies of Cheng et al. In respect to this, please see arguments above.

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(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.


For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Alexis Boateng



Conferees:


Karl Eastom (SPE 2838)
David Blum (SPRE 2800)